pp 6 - 8: "RESPECT THE TRADITIONS OF THE SHORTWAVERS," by V/asiliy Mikhaylovich/ Bondarenko, /UV3BW,/ chief, Central Radio Club of the USSR named after E. T. Krenkel'. In preparation for the IXth All-Union DOSAAF Congress, deep analyses are being made of the work accomplished with sharpened attention to shortcomings. We take up, from this point of view, one of the most widespread forms of radiosport in the country, shortwave sport. Shortwave amateur radio has become a mass sport, and has acquired qualitatively a new content, in the last 30 years. A breakthrough occurred in 1962, when the radiocommunication norms were included in the Unified All-Union Sport Classification System and the main indicators of successful on-the-air operation became sport achievements. This servedas a great stimulus to achieve high sport results for the overwhelming majority of shortwavers. Now Soviet shortwavers annually occupy not less than 20 to 25% of the prize places in international radiocommunication competitions. The achievements of the leading Soviet shortwavers in construction, especially in the area of the automation of their stations, is also very great. Their equipment is higher in technical level than the best world models used by foreign radio amateurs in the class "one transmitter - multiop."

"Giving just credit for the positive developments that it has been possible to achieve through the introduction of a sport basis into amateur radiocommunication, we cannot ignore several negative factors that have arisen amongst radioamateurs in an atmosphere of unhealthy rivalry. This has given rise to such phenomena, foreign to Soviet shortwave amateur radio, as the violation of comradely ethics and in individual cases even attempts at deceipt and falsification of sport results."

Analysis of monitoring data shows that many of our operators have forgotten that the amateur airwaves belong to all shortwavers. Most numerous among these are those who conduct conversations having not even an indirect relationship with radiosport. And the number of such violations has grown over the last three years. "They talk literally about everything -- about meeting people and seeing them off, about how they pass their time /?/ on leave and TDY, about train and plane arrival times and a mass of other purely /?/ matters. This kind of conversation sometimes takes on a group character and lasts tens of minutes."

In recent times, as a result of steps taken to improve quality, the number of cases of stations going on the air with poor-quality signals has decreased. As a percentage of all violations, those caused by bad signals were 42.5% in 1978, 39% in 1979, and 29.5% in 1980.

Cases are still numerous when amateurs fail to observe the frequency table. While they rarely go out of the amateur bands, they frequently operate 'phone in the c.w. bands, and during within-country /"intra-union"/ 'phone competitions this takes on a mass character. The new competition rules for 1981 - 84 specify the following 'phone segments /during contests - Tr./: 28.500 - 29.000, 21.200 - 21.400, 14.150 - 14.200, 7.040 - 7.100, and 3.600 - 3.650 MHz, so as to allow all those not taking part in contests to operate also. Special segments are also defined for DX QSO's. The rule requiring transmission of the other station's call and one's own call at the beginning and end of each QSO is unchanged; violations of this rule have recently increased, and attempts by some radiosportsmen to operate without callsigns or with shortened callsigns must be met by a decisive rebuff by participants in the contest.

The problem of excessive power is especially serious, going as it does against the principle of honest sport struggle and meaning that not the operator's skill and not the talant of the constructor, but power, counts. Some give the excuse that foreign competitors in Western countries operate with a kilowatt. This is true, and for this reason teams of shortwavers representing the USSR in the major international contests are given the possibility of operating under the same conditions as their competitors. But how can one explain excessive transmitter power in internal contests and in everyday contacts? One ham recommended to his friends over the air the use of a GU-36 tube, which developes a power of 10 kW! Failure to submit reports after contests is rightly criticized. Those who purposely don't send reports should have their stations closed and their callsigns cancelled, as was done with Candidate Master of Sport of the USSR Yu. Kotel'nikov, UA9SBP, who participated in almost all all-union competitions and championships over a period of three years and never submitted a single report.

The overwhelming majority of Soviet shortwavers contribute to fulfilling the main goal of the international radioamateur movement -- the strengthening of peace and friendship among the peoples. It is just for this reason that our "CQ - Mir" /"CQ - Peace"/ contest enjoys such popularity, that our delegations are greeted warmly at international radioamateur forums, and that warm words are addressed to operators of our memorial stations with special call-signs located at places associated with the Great Fatherland War.

However, other things occur on the amateur bands as well -- there are cases of outright hostile actions against our country and Soviet amateur radio. Our radioamateurs have never let pass and never will let pass any provocations. When, in 1967, after the sharp condemnation by the Soviet Union of the aggressive war unleashed by Israel against the neighboring Arab countries, Israeli shortwavers began to engage in hostile outbursts and offensive language toward Soviet radioamateurs, and the FRS of the USSR, based on numerous proposals by the radioamateur community in the country, decided to boycott the amateur radio stations of Israel. And for 15 years now the shortwavers of this country, which is known for its many aggressive acts, have continued to demonstrate on the air extreme hostility toward the radioamateurs of the Soviet Union, descending at times to unworthy and outright provocations.

Soviet radioamateurs always gave a worthy rebuff to their ideological opponents, demonstrating high patriotism, political maturity, and trueness to their ideals.

In relation to the forthcoming IXth DOSAAF Congress, I wish, while speaking of problems of ethical and political education of our radiosportsmen, to stress with particular emphasis the need for the fastest-possible creation of a "Code for the Soviet Shortwaver." The drawing up of such a document has dragged on inexcusably. The code, incorporating the glorious traditions of our radioamateur movement, would help local federations of radio sport to improve their educational work. This is particularly important today, when a new generation is taking over, when youth is getting on the air. Our duty is to give it a precise orientation based on the example of the older generation, always and in everything following the slogan "Hold high the sports honor of the country! Be useful to the Motherland!"

p 8: "UP TO THE PRESENT TIME, RADIOORPHANS!" by N. Grigor'yeva and G. Cherkas.

A year and a half ago we, correspondents of "Radio" magazine, traveled to Michurinsk in Tambov Oblast' to look into charges made in a letter signed by several dozen people -- including, paradoxically, radiohooligans. The thought occurred to us then that maybe they were not hooligans and merely radioorphans! It turned out that the rayon DOSAAF committee was not giving any help to organized amateur radio. There was no room for enthusiasts of radiotechnology to meet. This was all described in the article "Radiohooligans or Radioorphans" published in "Radio" magazine #7-8/1981. More than a year has gone by since the article was published. Has anything changed? Practically nothing. The city radio club is still housed in a crummy little room little suited for operation, rented in a school for working youth.

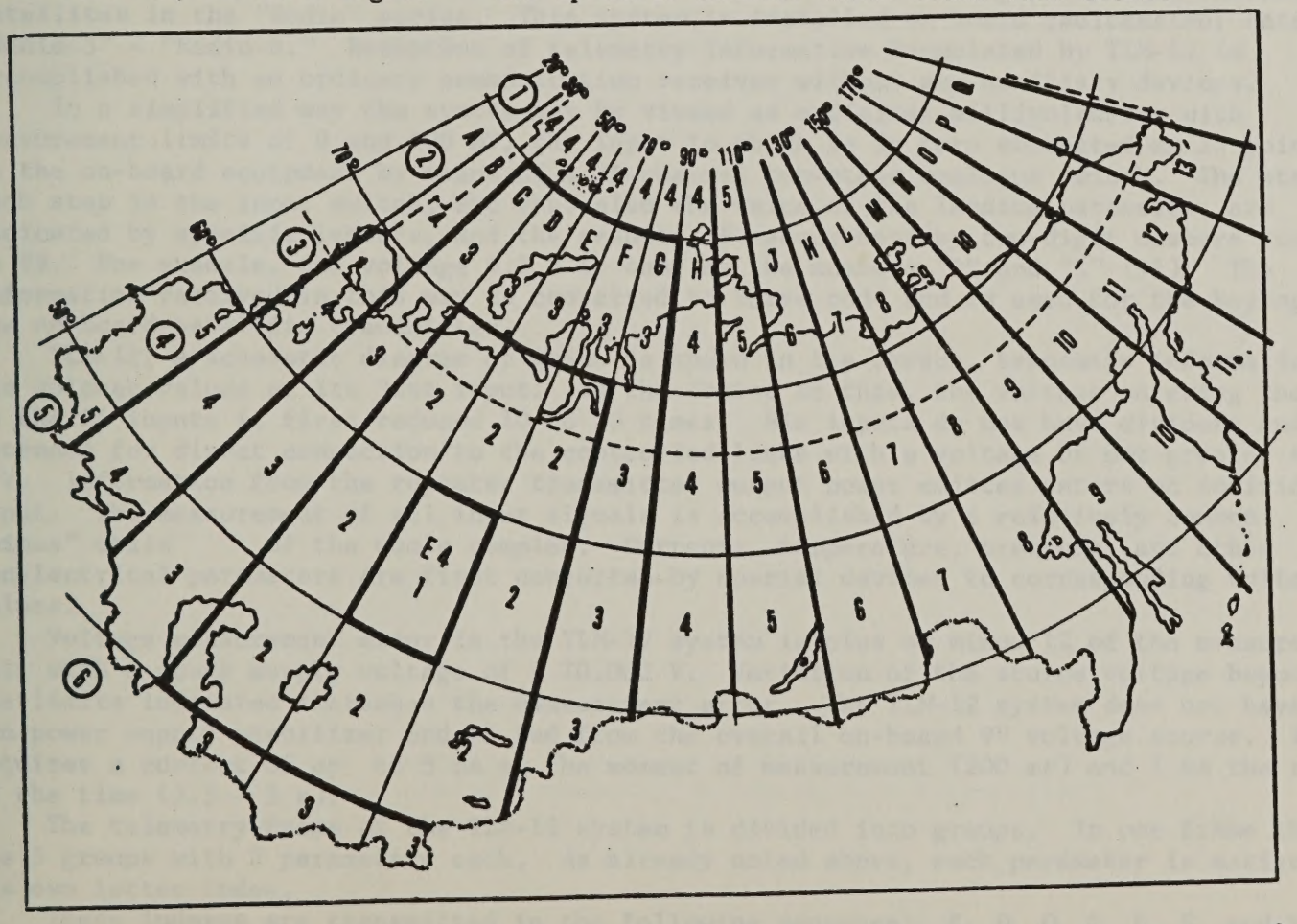
True, four months after the inquiry by "Radio" the deputy chairman of the Michurinsk city executive committee, N. Dorokhina, reported some successes in the development of amateur radio in the Michurinsk area. In particular, her report mentioned that five additional radioclubs had been organized and that some 250 persons were active in them, etc. Actually, for the time being there is just the one radioclub in the city, the same one that has been trying to get a room without success. The additional radio clubs are collective stations, already opened before publication of the article. And some of these exist only on paper and are not on the air.

And here is what S. Kozhevnikov, chairman of the Tambov Oblast' DOSAAF Committee, reported (also very late): An automobile school was due to be constructed in 1981 and the radio club would receive two rooms in it, thus ensuring normal work with the city's radioamateurs. However, for whatever reason Kozhevnikov failed to mention that he had promised the amateurs two rooms in a building to built at an unknown date, inasmuch as at the present time construction has been frozen /? - stroitel'stvo zakonservirovano/. The acting chairman of the Minchurinsk Rayon DOSAAF Committee, S. Yarygin, reports on the sad state of affairs of the local radioamateurs: "The Michurinsk city radio club as before is situated in an old room which, in additional to everything else, recently suffered seriously from a fire. The roof leaks, the plaster has fallen. The room is completely unsuited for operation, and repairs have not been scheduled." But despite the pessimism of Comrade Yarygin, the repairs

did take place. They were performed by the radioamateurs themselves. The chairman of the radio club council, V. Belkov, reporting this, stated also that the number of club members had grown noticeably and that not only schoolchildren were included but those who had until recently been radiohooligans. Then at this point the order came to vacate the room! One of the Michurinsk radioamateurs wrote to "Radio" that a useful youth activity was perishing and would arise again in its illegal form. We would agree. The situation is, indeed, critical. The words of the Michurinsk hams had been heard around the world, but not in their native city. One wonders about the opinion of the party organs of the city. It is difficult to believe in a rayon center it is impossible to find one room where dozens of boys and girls, attracted by radio, could engage in radiosport.

pp 9 - 10: "WE INVITE PARTICIPATION."

Following the first All-Union 160m Radiocommunication Competitions for the "Radio" magazine prize, the editors received many letters with reactions. Nearly all the authors favored making the contest a tradition but requested some reconsideration of the rules to stimulate DX contacts. This year these competitions will be held 20 - 21 November, dedicated to the 60th anniversary of the formation of the USSR. As last year, the following may participate: Collective stations (not less than two persons), individual shortwave and ultrashortwave station licensees, beginners, and observers. Those who do not yet have call-signs /this presumably refers to SWL call-signs. Tr./ may participate, but only as observers. Winners will be determined in six subgroups: Beginning radioamateurs with EZ calls (c.w.; mixed mode); experienced radioamateurs (mixed); collective station teams (mixed); observers with call-signs and observers without call-signs. The competitions will take place in two rounds, simultaneously 'phone and c.w.: 20 November, 2000 - 2200 Moscow Time, and 21 November - 0000 - 0200 /in UTC, 20 November, 1700 - 1900 and 2100 - 2300.- Tr./ The general call during the contest by 'phone is "Vsem, zdes' (call-sign)" /"to all, here is.."/ and on c.w. "CQ DE (call-sign)." The operator chooses which round will count.



For calculating points, the territory of the Soviet Union has been divided up arbitrarily into squares measuring 10° by 10° beginning at 20° east longitude and 40° north latitude. Each square is assigned its own alpha-numeric code. Moscow is in square B4, Sverdlovsk in D4, and Novosibirsk in F4. The exchange consists of signal report, sequential number, and square, e.g., 579004/F3; 59024/B4. In mixed mode numbering continues unbroken /numeratsiya svyazey skvoznaya/, but in each round the numbering begins with 001. Repeat QSO's are permitted only in the case of contacts with EZ stations on condition that they are conducted in different modes -- 'phone, c.w.

A QSO within one's own square counts one point, with a neighboring square two points, with one square in between 3, two squares in between 4, etc. The drawing shows the scoring for a participant situated in square E4. Contacts with beginners' stations count doubl . In case of a tie, the station that worked the greater number of EZ stations wins.

Reports must be sent in, and in cases when both rounds were worked, the one to be counted must be indicated. In check-list submissions the score need not be calculated. Reports go to the Editors of "Radio" Magazine, Petrovka 26, 101405 GSP MOSCOW K-51, by 5 December 1982 (postmark), noting "160 - report" on the envelope. Good luck in the contest!

pp 12 - 13: WHAT THE TELEMETRY OF SATELLITES RS-3 - RS-8 IS TELLING ABOUT," by A. Papkov.

/ Detailed summary. /

/ Introduction. / DOSAAF Master Radio Constructor A. Papkov is the author and designer of all the telemetry and command systems, as well as the on-board automatic and memory devices and robots installed on Soviet radioamateur satellites. The article explains the procedure for receiving telemetry information from space as well as the purposes and arrangement of the telemetry system TLM-12, used at the present time to control the operational systems of the on-board equipment of the "Radio-3" - "Radio-8" satellites. / End introduction. /

The TLM-12 telemetry information transmission system was designed for the radioamateur satellites in the "Radio" series. This system is installed on board radioamateur satellites "Radio-3" - "Radio-8." Reception of telemetry information formulated by TLM-12 is accomplished with an ordinary communication receiver without any auxiliary devices.

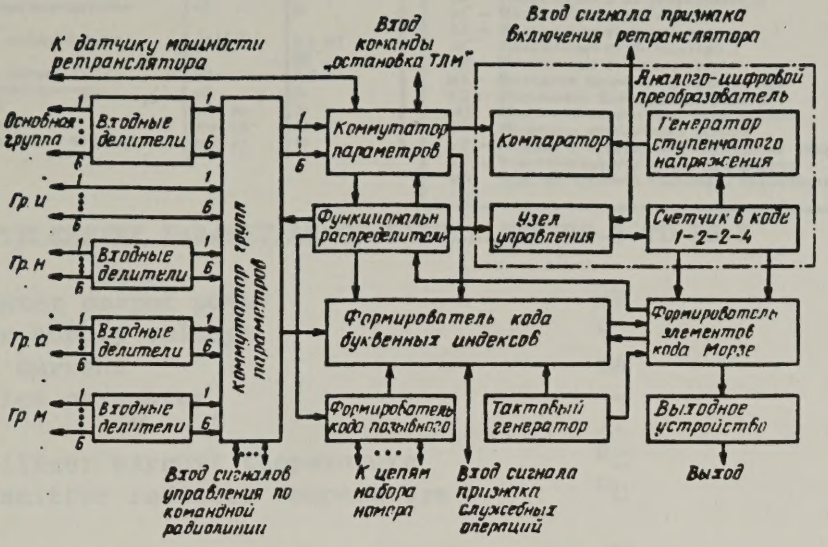
In a simplified way the system may be viewed as a digital millivoltmeter with measurement limits of 0 and 990 mV, the input to which is in turn connected via 31 points to the on-board equipment by means of a 35-channel two-stage analogue switch. The status of each step in the input switch, and thus also the value of the leading parameter, are indicated by specific letters, and the results of measurement by two-digit numbers from 00 to 99. For example, the voltage 9.1 V is sent as the numbers "9" and "1" (91). The information received in this way is converted to Morse code and is used for the keying of the on-board satellite transmitter.

TLM-12, a schematic diagram of which is shown in the sketch, transmits information on the voltage values at its 31st input. In the course of this, the voltage entering the switch in the 24 inputs is first reduced 10 to 20 times. Six inputs do not have dividers and are intended for direct connection to the controlled links with a voltage of not greater than 1 V. Information from the repeater transmitter output power emitter enters an individual input. The measurement of all input signals is accomplished by a relatively common "minus" chain of the whole complex. Currents, temperature, pressure, and other nonelectrical parameters are first converted by special devices to corresponding voltage values.

Voltage measurement error in the TLM-12 system is plus or minus 1% of the measurement unit with a power supply voltage of 9 ±0.002 V. Variation of the source voltage beyond the limits indicated increases the measurement error. The TLM-12 system does not have its own power supply stabilizer and is fed from the overall on-board 9V voltage source. It requires a current of up to 5 mA at the moment of measurement (200 ms) and 1 mA the rest of the time (2.5 - 3 s).

The telemetry frame of the TLM-12 system is divided into groups. In one frame there are 5 groups with 7 parameters each. As already noted above, each parameter is assigned its own letter index.

These indexes are transmitted in the following sequence: K, D, O, G, U, S, and V. The first group in the telemetry frame is the basic one and does not have a letter index. The four remaining groups are assigned indexes: i, n, a, m. Thus, before the numerical


К датчику мощности ретранслятора
Вход команды „остановка ТЛМ"
Вход сигнала признака включения ретранслятора
Основная группа
Гр и
Гр н
Гр а
Гр м
Входные делители
Коммутатор группы параметров
Коммутатор параметров
Функциональн распределитель
Компаратор
Узел управления
Аналого-цифровой преобразователь
Генератор ступенчатого напряжения
Счетчик в коде 1-2-2-4
Формирователь кода буквенных индексов
Формирователь элементов кода Морзе
Формирователь кода позывного
Тактовый генератор
Выходное устройство
Вход сигналов управления по командной радиолинии
К цепям набора номера
Вход сигнала признака служебных операций
Выход

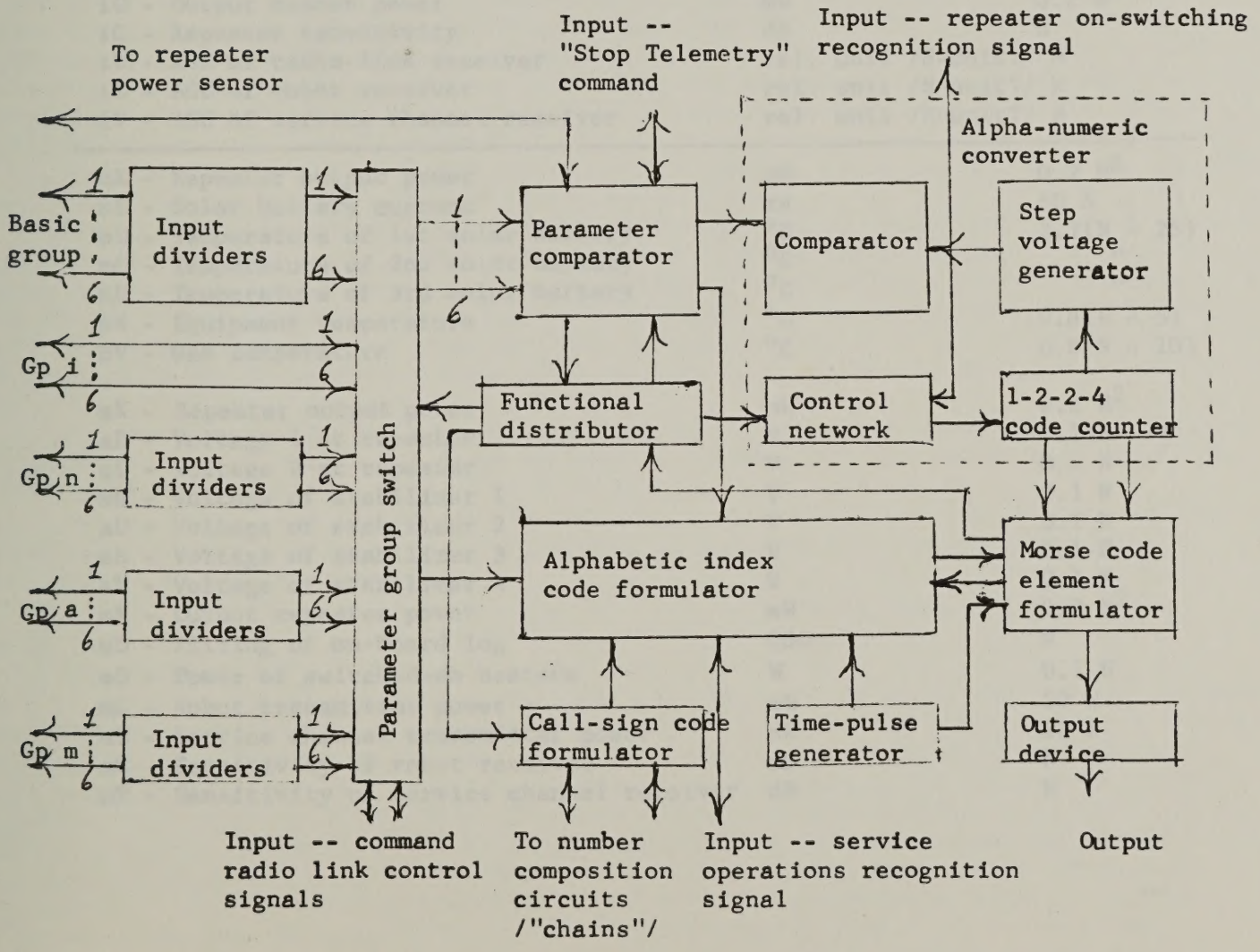

To repeater power sensor
Input -- "Stop Telemetry" command
Input -- repeater on-switching recognition signal
Alpha-numeric converter
Basic group
Gp i
Gp n
Gp a
Gp m
Input dividers
Parameter group switch
Parameter comparator
Comparator
Step voltage generator
Functional distributor
Control network
1-2-2-4 code counter
Alphabetic index code formulator
Morse code element formulator
Call-sign code formulator
Time-pulse generator
Output device
Input -- command radio link control signals
To number composition circuits /"chains"/
Input -- service operations recognition signal
Output

Таблица телеметрических параметров спутников РС-3 — РС-8

К — Выходная мощность ретранслятора	мВт	0,2 N²
Д — Напряжение источника питания	В	0,2 N
О — Ток нагрузки	мА	20(100 - N)
Г — Служебный параметр		—
У — — » —	--	--
С — Температура блока стабилизаторов	°С	N
В — Температура радиатора передатчика	°С	N
— » —		
иК — Выходная мощность ретранслятора	мВт	0,2 N²
иД — Калибровка	—	00
иО — Выходная мощность маяка	мВт	0,2 N²
иГ — Чувствительность ретранслятора	дБ	N
иУ — АРУ приемника КРЛ	отн. ед.	N
иС — АРУ приемника робота	отн. ед.	N
иВ — АРУ приемника служебного канала	отн. ед.	N

нК — Выходная мощность ретранслятора	мВт	0,2 N²
нД — Ток солнечных батарей	мА	50 N
нО — Температура 1-й солнечной батареи	°С	2,7(N - 26)
нГ — Температура 2-й солнечной батареи	°С	— » —
нУ — Температура 3-й солнечной батареи	°С	— » —
нС — Температура оборудования	°С	0,8(N - 5)
нВ — Температура газа	°С	0,8(N - 10)
аК — Выходная мощность ретранслятора	мВт	0,2 N²
аД — Напряжение 1 на ретрансляторе	В	0,1 N
аО — Напряжение 2 на ретрансляторе	В	0,1 N
аГ — Напряжение стабилизатора 1	В	0,1 N
аУ — Напряжение стабилизатора 2	В	0,1 N
аС — Напряжение стабилизатора 3	В	0,1 N
аВ — Напряжение стабилизатора 4	В	0,1 N
мК — Выходная мощность ретранслятора	мВт	0,2 N²
мД — Заполнение бортжурнала робота	QSO	N
мО — Мощность включенных нагревателей	Вт	0,1 N
мГ — Мощность передатчика робота	мВт	20 N
мУ — Мощность передатчика служебного канала	мВт	20 N
мС — Чувствительность приемника робота	дБ	N
мВ — Чувствительность приемника служебного канала	дБ	N

TABLE OF TELEMETRY PARAMETERS OF SATELLITES RS-3 TO RS-8

K - Repeater output power	mW	0.2 N^2
D - Power supply voltage	V	0.2 N
O - Load current	mA	20(100 - N)
G - Service parameter	--	--
U - " "	--	--
S - Stabilizer circuit temperature	^oC	N
V - Transmitter radiator temperature	^oC	N
iK - Repeater output power	mW	0.2 N^2
iD - Calibration	--	00
iO - Output beacon power	mW	0.2 N^2
iG - Repeater sensitivity	dB	N
iU - AGC of radio-link receiver	rel. unit /S-unit?/	N
iS - AGC of robot receiver	rel. unit /S-unit?/	N
iV - AGC of service channel receiver	rel. unit /S-unit?/	N
nK - Repeater output power	mW	0.2 N^2
nD - Solar battery current	mA	50 N
nO - Temperature of 1st solar battery	^oC	2.7(N - 26)
nG - Temperature of 2nd solar battery	^oC	"
nU - Temperature of 3rd solar battery	^oC	"
nS - Equipment temperature	^oC	0.8(N - 5)
nV - Gas temperature	^oC	0.8(N - 10)
aK - Repeater output power	mW	0.2 N^2
aD - Voltage 1 at repeater	V	0.1 N
aO - Voltage 2 at repeater	V	0.1 N
aG - Voltage of stabilizer 1	V	0.1 N
aU - Voltage of stabilizer 2	V	0.1 N
aS - Voltage of stabilizer 3	V	0.1 N
aV - Voltage of stabilizer 4	V	0.1 N
mK - Output repeater power	mW	0.2 N^2
mD - Filling of on-board log	QSO	N
mO - Power of switched-on heaters	W	0.1 N
mG - Robot transmitter power	mW	20 N
mU - Service channel transmitter power	mW	20 N
mS - Sensitivity of robot receiver	dB	N
mV - Sensitivity of service channel receiver	dB	N

value of each parameter a one- or two-letter index is transmitted. Such a construction of telemetry information permits it to be receiving under very strong interference and fading conditions, and permits reconstituting a full telemetry frame from fragments.

Actually, there is no necessity when receiving to follow the sequence of the parameters; it is sufficient to take down one or two letters representing the index and the two numbers directly following it to be able unambiguously to confirm that the value received is that of a specific parameter. If several operators simultaneously take down information and later compare results, the reliability of the information received is increased.

After the transmission of the parameters of each group, a short pause follows, and after it the call-sign of the satellite is transmitted, consisting of the letters "RS" and the number of the satellite, for example for the fifth satellite in the "Radio" series -- "RS5."

The querying period /? - Period oprosa/ for the telemetry system, and consequently for transferring from parameter to parameter, is not the same. The period is determined by the specific inequalities of the Morse telegraphic code which is used.

The advantage of the TLM-12 system is the possibility afforded for the operational changing of the makeup of the telemetry frame based on signals over the command radio link. In other words, on command from Earth it is possible to exclude from the makeup of the telemetry frame any group, the parameters of which are not of interest at the time. It is also possible to exclude several groups and any combination or all groups except the basic group, which is always present in the telemetry frame.

While performing various experiments with a satellite, for example tracking its position in space, a significant increase in information corresponding to the necessary parameter is possible through a blocking of input switches. When this occurs the letter indexes and numerical values are transmitted for only one particular parameter. Such blocking takes place on command from Earth, and the command is given at the moment of transmission by the telemetry system of the parameter concerned. De-blocking is also carried out over the command radio link.

The distribution of parameters in the full telemetry frame and the formulas for their conversion into necessary values are given in the table.

Parameter "K" in each group contains information on the output transmitter power, which permits radioamateurs to judge the loading of the repeater channel and the necessary power for their signals. However, it is necessary to remember that what is measured is the sum of the output cascade /vykhodnogo kaskada/ of the transmitter, which is radiating not only the repeater signals but also the "beacon" and the "robot." If in the parameter "K" of each group there appear two zeros (00), this means that the repeater channel is switched off.

For the carrying out by command-reception points of service operations, the index e appears in front of the letter index of the basic group, and the letter indexes of the other groups change as follows: i to s, n to r, a to u, and m to v.

Parameters iC, mV, and mS provide information on the weakening of signals at the inputs of on-board receivers in the dividers. A zero value for these parameters corresponds to maximum sensitivity

/Datelined:/ city of Kaluga

pp 20 - 21: CQ-U.

INFO*INFO*INFO.

In the FRS of the USSR. The Federation of Radio Sport of the USSR has announced the results of the XVIIth Telephone Shortwave Radiocommunication Championship of the USSR. Shortwavers from Kazakhstan did well. The 1982 national champion among operators of individual stations was A. Makayenko, UL7EAJ, from Shchuchinsk, Kokchetavskaya Oblast', followed by G. Khonin, UL7QF, from Alma-Ata, and G. Kolmakov, UA9MAF, from Omsk. Among collective stations, UK7LAH from Kustanay came in first, UK6LAZ second, and UKØCBE third. The leading observers were A. Val'chenko, UA3-121-1251, from Voronezh, A. Korpachev, UA9-084-200, from Ufa, and A. Nagiba, UB5-067-2040, from Krymskaya (Crimea) Oblast'. A decision has been adopted to close, for a three-month period, individual stations not submitting reports, and not to permit collective stations not submitting reports to participate in the 1983 event.

VHF*UHF*SHF, by S. Bubennikov /UK3DDB/. on 10 April opening "Aurora." /Highly selective./ Reports/from ultrashortwavers: RB5LGX (46° geomagnetic latitude): "From 1415 to 1520 UT I heard UR2RQT's signals practically constantly. I also succeeded in working him." UR2RQT: "I operated over a period of four hours beginning at 1330 UT. I had 79 QSO's, nasically over distances of greater than 1500 km. To the east I worked RA9FBZ, UA9GL, UA9FAD, UA4UK, to the south RB5LGX, many UA3's, to the west G3POI, G4IJE, G3NSM, GM4COK, OK1SBL, OK2BPB, a large quantity of DL's, PA's, OZ's, Y's, and even F6FLB!" UC2ABN: "In the 430 MHz band I established contact with SM4IAZ and SM4AXY." UP2BJB: "From 1400 to 1840 UT I conducted 58 QSO's, among them seventeen (!) with G's, three with GM's, eleven with DF/DK/DL, eight with PA's, four with OK's, two with Y's, and one each with GW, F, and ON. The farthest contact was over a distance of 1845 km -- with G4IGO."

"EME." /Quote of entire section on EME./

Communication via the Moon is enjoying ever greater popularity among ultrashortwavers. The leading sportsmen are especially active here. At the beginning of May the second round of the EME contest took place. Here is what the ultrashortwavers reported concerning it.

UA1ZCL: "On 1 May I worked OK1MBS, N4GJV, KR5F, and WB5LUA, and on 2 May F6AMQ, Y22ME, DK1BM, F6DTE, WB5ERD, WA1JXN/7, and WBØTEM. Eight of the contacts on this list were made without sked. The propagation was unsteady. An interesting phenomenon was noted (UA3TCF noted it too!): The lower the Sun on the horizon the better the conditions for EME operation."

UA3TCF: "On account of strong variations in the commercial lines, I didn't operate on transmit much - in the second round I established contact only with SM2GGF and K1WHS. But I heard 42 (!) different stations from 14 countries on three continents."

UA3RFS: "Inspired by success in the first round (I heard EME signals for the first time!), I tried to establish my first Moon communication. For this purpose I kept track almost the whole time of the the most 'powerful' station, K1WHS. The night of 1/2 May I called him several times, and it even seemed he answered me, but there is no full assurance of this."

UA9CKW: "On 1 May at 2030 UT I monitored "Moon" signals for the first time, for 20 minutes: On the frequency 144008 kHz I heard K1WHS conducting communications. The signal reached 8 dB above the noise level. I used a 2 x 15-element F9FT antenna."

UD6DFD: "On 2 May I established my second EME contact with SM7BAE. I heard ~~in addition~~ another group of stations, in particular K1WHS (4 dB) and VE7BQH (3 dB)..."

UA3LBO: "Almost the whole time there was strong interference in my area. But suddenly, as the competition was nearing its peak 2 May, the interference unexpectedly weakened, and YV5ZZ, OH7PI, DK1BM, ZS5IE, YU1AW, WA1JXN/7, VE7DFO, DK1PZ, SM2GGF, N4GJV, UB5JIN, F6DTE, UA1ZCL, and K1WHS became clearly audible. I just listened, forgetting about going over to transmission. A half an hour later the interference resumed, so that I was able to conduct only two QSO's, with DK1PZ and F6DTE. These were my 24th and 25th EME contacts for me."

943

NLD-~~493~~, 4 August 1982 (na lyubitel'skikh diapazonakh = on the amateur bands, column edited by Boris Stepanov, UW3AX).

Radioamateur Satellites. Orbital data for "Radio-3" through "Radio-8" for August.

Club News. Students of the Novosibirsk Electrotechnical Institute will use call-sign EKØK during an expedition beginning 5 August to the Chukotskiy Autonomous District /Okrug/. Contacts with the station are worth 5 points for "RAEM" diploma. QSL to Yu. Zaruba, UA9OBA, chief of the expedition.

NLD-944, 11 August 1982.

Club News. UK9YBD/U9Z and UA9YEW/U9Z will operate from the Gorno-Altaysk area from 20 through 25 August, and from the settlement of Onguday from 26 August through 2 September. EK3AFX will operate from the yacht "Aurora" sailing from Leningrad to Kaliningrad and back from 6 through 30 August. R4ASK will be used from 21 August 1982 through 4 February 1983 by the "Tovarishch" student radio club to commemorate battles around Stalingrad 40 years before.

U6EMP (UK6EAA), U6EKP (UK6EAD), U6ESP (UK6EAE), and U6EPK (UK6EAF) are operating from valleys in the Caucasus.

NLD-945, 18 August 1982.

Club News. Stations with special call-signs in the series U9FAA - U9FBZ will operate from 25 August to 8 September during an RSFSR ultrashortwave championship. The blocks R9FAA - R9FAE/FAF-FAH/FAI-/FAK and U5GAA - GAZ, GCA - GDZ will also be used. UK7PAL was operated from 15 May through 13 June as PK7PAL on six bands, making over 14,000 QSO's with 193 countries and 171 oblasts.

NLD-946, 1 September 1982.

Competitions. Contests for September.

Radioamateur Satellites: Orbital data for September.

NLD-947, 8 September 1982.

Competitions. Detailed rules for WAE DX Contest and SAC Contest. In latter, operation in the multitransmitter category requires permission from the State Telecommunication Inspectorate, applied for through the Federation of Radio Sport of the USSR.

"Airwaves" Radioamateur Club, Issue No. 9, 22 September 1982.

The Federation of Radio Sport of the USSR, the Central Radio Club of the USSR Named After E. T. Krenkel', and the magazine "Radio" will conduct activity days 2 - 3, 9 - 10, 16 - 17, 23 - 24, 30 - 31 October via the "Radio" satellites, dedicated to the 25th anniversary of the launching of the first satellite in the world. Any mode, or mixed mode, may be used. Reports from amateurs in the USSR go to 107120, Moskva, B-120, ul. Chkalova, 46/48, NILKT s TsPKP; foreign amateurs use the address: SSSR, Moskva, ab/yashch 88.

Information. In response to numerous requests, information is published on the new address and telephone numbers of the Central Radio Club of the USSR Named After E. T. Krenkel'. All internal correspondence for the CRC should be sent to: 123511, Moskva, D-511, Pokhodnyy proyezd, 23, TsRK SSSR im. E. T. Krenkelya. The department to which the letter is being sent should be shown on the envelope. The new telephone numbers of CRC departments are: General: 497-71-67; the educational-training department (old name: sport department): 497-89-02; radiotechnical consultation: 497-20-39 and 298-52-24; radioexhibition section: 493-93-17; QSL bureau and diploma service: 493-55-14; the account number has not changed: 700152 in the Tushinsk branch of the State Bank in Moscow. Correspondence for the Federation of Radio Sport of the USSR should be sent to the old address: 123362, Moskva D-362, Volokolamskoye Shosse, 88, FRS SSSR. Because of the move into a new building, orders for copies will not be carried out until December of this years.

To Our Readers. Requests for views of readers as to what should be included in "Airwaves" club column and in "Soviet Patriot," and what if any new sections should be included in the NLD column.

NLD-949, 22 September 1982. RADIO #9/1982

Club News. U2G will operate from 1 through 7 October from the city of Smiltene, Latvia. QSL address: Radio Club, 228675 SMILTENE, Latvia. The station marks the 25th anniversary of the first rural radio club in the republic.

NLD-950, 29 September 1982.

Competitions. Contests for October.

Radioamateur Satellites. Orbital data for October.

DX Stations. Announcement of 5Y4ITU operation from Nairobi during ITU Plenipotentiary Conference at Nairobi, and of substitution of prefix 5Y4 for 5Z4 by Kenyan stations during conference.

NLD-951, 6 October 1982.

Club News. UK9OAA/U8L will be operated from 18 through 24 October by a group of Novosibirsk amateurs from the new, recently-formed Navoiyskaya Oblast' in Uzbekistan. (A series for the oblast' has not yet been assigned.) It is possible that the station will operate via satellite. QSL's via UA9OBJ (M. Golovko). ... UK1PGO operates Mondays at 1500 UTC on 14.300 MHz, when he has a sked with UK3SAB. On Mondays, Thursdays,and Saturdays UK1PGO usually operates from 1100 to 1500 UTC on 14.180 MHz or 14.200 MHz, and on Thursdays beginning at 1500 UTC on 14.030 MHz. S. Pasynkov, UK1PGO, over the air via UW3HY.

DX Stations. "From 14 December through 1 January 9N1A (KP2A) 9N1YOU (VU2YOU), and 9N38 (WB4NFO) will be active."

NLD-952, 13 October 1982.

Club News. U9H will operate in connection with the 375th anniversary of Tomsk; its regular call is UK9HAC. From Yu. Shumkin, UA9IM.

In the FRS of the USSR. "The bureau of the FRS USSR is considering the matter of the call-sign system for amateur radiostations in the USSR (within the framework of the existing system, introduced in 1970, there are no longer available series for new oblasts in the eighth call area, there is no reserve in the fifth call area, etc.). A commission has been set up consisting of representatives of interested organizations; the commission is to examine all suggestions reaching the FRS USSR on this matter (including those from readers of the "Airwaves" club column -- their suggestions have been sent to the FRS USSR)."

NLD-953, 20 October 1982; "Airwaves" Radioamateurs' Club: Nothing of note.

NLD-954, 27 October 1982.

Club News. RG6G will operate from Armenia during the CQ WW 'phone and c.w. contests. The operators are from Lithuania: Radio Station UK2BAS, P. O. Box 71, 235400 SIAULIAI, Lithuania. From Y. Pashkauskas, UP2PAJ.

Radioamateur Satellites. Orbital data for November.

NLD-955, 3 November 1982.

Club News. EW6V will be used in the CQ WW DX Contest from the Abkhazskaya ASSR until 1 December by a club from the Kaunas Polytechnic Institute commemorating the 60th anniversary of the formation of the USSR; at other times UK2PCR/U6V will be used. QSL address: P. O. Box 210, 233000 KAUNAS-Center, Lithuania. From A. Vingris, UP2BBT. ... QSL cards for JTØDKF should be sent to UK3DAU, P. O. Box 45, 141980 DUBNA. From V. Semenov, UA3DKF. ... The collective station of Moscow State University will use the call-sign RK3ABO (instead of UK3ABO) until 5 November. ... Soviet antarctic stations 4K1A (Molodezhnaya), 4K1G (Leningradskaya), 4K1D (Novolazarevskaya), and 4K1H (Russkaya) are expected to be active during the Krenkel' memorial competitions.

NLD-956, 10 November 1982.

Competitions. Rules for an all-union 160-meter contest lasting for two hours each on 20 and 21 November, on both c.w. and 'phone. Part of the exchange is a square such as B4 (Moscow), resulting from the arbitrary division of the USSR every 10^{o}, beginning at 20^{o} east longitude (A to Q), and at 40^{o} north latitude (1 to 6). Reports go to Radio magazine: 101405, GSP, Moskova, K-51, Petrovka, 26, redaktsiya zhurnala "Radio" ("otchet-160").

NLD-957, 17 November 1982.

Club News.

A "round table" of shortwavers who participated in the Battle of Stalingrad will be held beginning 24 November on Sundays from 1200 to 2000 MSK /0900 to 1700 UTC - Tr./ on 14.250 MHz, according to V. Poltavets, UA4AM, Chairman of the Volgogradskaya Oblast' FRS.

UKØQBX/M will be operated from the settlement of Titar' /sp?/ in the Yakutskaya ASSR from 20 through 30 November, according to an over-the-air report from UAØQFK via UA3ACQ.

EK5Q was used from 14 through 24 August 1982 by a radio exhibition of Zaporozh'ye hams, dedicated to the 50th anniversary of the Dneprovsk Hydroelectric Station Named After V. I. Lenin. The following address is given for a commemorative diploma and for sending QSL's: Federation of Radio Sport
50 Pravda Street
330600, GSP-846, ZAPOROZH'YE
USSR.

Radio Amateurs' "Airwaves" /"EFIR"/ Club, Issue No. 11 (Sovetskiy Patriot for 24 November 1982)

Information Table.

"At the request of radioamateurs, we are publishing reference data for calculating passes of the "Radio" series of radioamateur satellites. For each satellite the number of the first orbit of the 24-hour period (4, 11, 18, and 25 December respectively), the time (UT), and the longitude of the ascending node for this orbit, are given."

/ Translator's note: Actual data are given in the article itself, reproduced below, in the second through fifth paragraphs. /

"Here T = the period of rotation of the satellite. $\Delta\lambda$ = the displacement of its orbit in one rotation."

"The orbital calculations were performed for the "Airwaves" club by V. Dobrozhanskiy."

Стоп справок

По просьбам радиолюбителей мы публикуем исходные данные для расчета сеансов связи через радиолюбительские ИСЗ серии «Радио». Для каждого ИСЗ приведены номер первой на данные сутки орбиты (соответственно для 4, 11, 18 и 25 декабря), время (UT) и долгота восходящего узла этой орбиты.

«Радио-5»: 4235-1.09-2; 4319-0.32-4; 4404-1.54-35; 4488-1.16-4 (T=119,555 мин, $\Delta\lambda$=30,06°).

«Радио-6»: 4265-1.24-9; 4350-1.35-22; 4435-1.46-36; 4520-1.56-49 (T=118,717 мин, $\Delta\lambda$=29,8°).

«Радио-7»: 4248-1.41-12; 4332-0.33-6; 4417-1.25-29; 4501-0.18-23 (T=119,196 мин, $\Delta\lambda$=29,92°).

«Радио-8»: 4228-1.59-14; 4312-1.40-19; 4396-1.20-25; 4480-1.00-31 (T=119,765 мин, $\Delta\lambda$=30,07°).

Здесь T — период обращения спутника, $\Delta\lambda$ — смещение его орбиты на один виток.

Расчет орбит произвел для клуба «Эфир» В. Доброжанский.

NLD-958, 24 November 1982.

Competitions.

List of contests for December -- EA Contest (c.w.), ARRL 10-meter Contest, Soviet women's contest (19 December), and Krenkel' memorial all-union competitions (25 - 26 Dec.).

USSR champions for shortwave telegraphy for this year: G. Rumyantsev, UA1DZ; silver medal L. Krupenko, UAØQWB; bronze medal K. Khachaturov, UW3HV; collective station team UK6LAA; observer A. Val'chenko, UA3-121-1251. Among republics, the RSFSR came in first.

In the all-union competitions for shortwave radiocommunication this year: UKØQAA and UAØQWB (E. T. Krenkel' cup of the Central Radio Club); UKØQAA and UAØQWB (cup of the Federation of Radio Sport of the USSR); UK6LAA and UAØQWB (cup of the newspaper "Sovetskiy Patriot").

In the competitions "CQ-M" the first places among Soviet participants by subgroup: UK5IAZ, UL7CT, UB5PBA (1.8 MHz), UQ2GDW (3.5 MHz), UR2QD (7 MHz), UT5QG (14 MHz), UAØWAY (21 MHz), UW6MA (28 MHz), UA3-121-1215. The leaders among foreign participants were K1KI, Y23EK, and LZ2-P-73.

Club News.

The polar transcontinental scientific-sport expedition, organized by the newspaper "Sovetskaya Rossiya," the Urals scientific center of the Academy of Sciences of the USSR, and the Sverdlovsk Oblast' Committee of DOSAAF, has begun. It is dedicated to the 60th anniversary of the formation of the USSR and will last until June of next year. The itinerary will cover some 10,000 kilometers from Uelen to Murmansk. Communication with the station of the group, EK9E, will take place via two base stations, EK9C and EK9D, which will go on the air from five populated points. An approximate timetable for the latter stations'

operation follows:
EK9C/Ø - November - Lavrentiya (oblast' 139);
EK9D/Ø - November-February - Chekurdakh (oblast' 098);
EK9C/Ø - November-April - Khatanga (oblast' 105);
EK9D/Ø - January-June - Anderma (oblast' 114);
EK9C/1 - March-June - Murmansk (oblast' 143).
The base stations will work all radioamateurs during time left free from passing traffic, on all shortwave bands, c.w. and SSB. Cards go via UK9CAE. Submitted by V. Fatikov, UV9DT, chairman of the FRS of Sverdlovskaya Oblast'.

From 29 November through 3 December the radioamateurs of Chi inskaya Oblast' will be active, providing a good occasion to earn the "Zabaykal'ye" diploma, which is supplied free on application by 15 December to Diploma Commission, DOSAAF Radio-Technical School, P. O. Box 613, 672007 CHITA, USSR.

Resuming translations from Issue No. 11 of "Airwaves" club (Sovetskiy Patriot, 24 Nov. 1982):

"In the Federation of Radio Sport of the USSR: Course on the Spartacade," by A. Grekov.

The results of work over the period 1981 - 1982 were discussed at a plenum of the council of the Federation of Radio Sport of the USSR, held recently. FRS responsible secretary V. Yefremov addressed the plenum, noting that the mass-character of amateur radio has increased somewhat, that the skill of amateur sportsmen has grown, that mixed teams has participated successfully in international competitions, and that steps had been taken to improve the material-technical base of radiosport. However, shortcomings remained, for example the weak development of radiosport in general-education schools, teachers' colleges /? - PTU/, and technical schools /tekhnikumy/, and in higher educational institutions; the slow growth of the network of collective stations that are to serve as the basis for the organization of radiosections and circles; slow development of the 160m band. Also noted was the failure of certain oblasts, krays, autonomous republics, and union republics to participate in pre-announced all-union activities; violation of rules by shortwavers; faults in QSL forwarding, diploma issuance; etc.

Deputy Minister of Communication Yu. Zubarev was elected chairman of the Federation of Radio Sport of the USSR. /Translator's note: This is Yuriy Borisovich Zubarev, whose calling card in Russian and English reads as follows: Zamestitel' Ministra svyazi SSSR / Moskva / Tel: 209-48-32, 294-97-75 /// Y. B. ZUBAREV / Deputy Minister / Ministry of Posts and Telecommunications of the USSR / Moscow. Mr. Zubarev -- accent on first syllable of last name -- attended the ITU Plenipotentiary Conference, Nairobi, 1982./

Preparations for the VIIIth Summer Spartacade of the Peoples of the USSR were discussed.